

I CLAIM:

1. A multi-directional switch comprising:

a base;

a contact leg assembly including

5 a conductive member fixed on said base and having
a central contact portion, and four side contact
portions that are disposed around said central contact
portion,

10 a common contact leg fixed on said base and
connected electrically to said conductive member,

a central contact leg fixed on said base and
spaced apart from and adjacent to said central contact
portion of said conductive member, and

15 four side contact legs fixed on said base and
spaced respectively apart from and respectively
adjacent to said side contact portions of said
conductive member;

a resilient plate assembly including

20 a central plate unit positioned on said base
and including at least one conductive central plate
that has an upwardly convex resilient plate portion
which is connected electrically to said central contact
portion of said conductive member and which is disposed
at a non-actuated position, where said resilient plate
25 portion of said central plate is spaced apart from said
central contact leg, and which is capable of being
pressed to move to an actuated position, where said

resilient plate portion of said central plate is in electrical contact with said central contact leg, after which said resilient plate portion of said central plate can return to said non-actuated position when released,

5 a peripheral plate unit positioned on said base and including at least one annular peripheral plate that has four conductive portions disposed around said central plate, and four insulating bridging plate portions, each adjacent pair of said conductive portions of said peripheral plate being interconnected
10 fixedly by a respective one of said bridging plate portions, each of said conductive portions of said peripheral plate being in electrical contact with a respective one of said side contact legs and having
15 an upwardly convex resilient plate portion that is disposed at a non-pressed position, where a corresponding one of said conductive portions of said peripheral plate is spaced apart from a corresponding one of said side contact portions of said conductive
20 member, and that is capable of being pressed to move to a pressed position, where the corresponding one of said conductive portions of said peripheral plate is in electrical contact with the corresponding one of said side contact portions of said conductive member
25 so as to establish electrical connection between the corresponding one of said side contact portions of said conductive member and the respective one of said side

contact legs, after which the corresponding one of said resilient plate portions of said peripheral plate can return to said non-pressed position when released, and

an annular top cover fixed on said base; and

5 a pressing mechanism including

a key seat extending through said top cover and swingable on said base, said key seat having a central hole and four pressing portions, and

10 a push key extending through and disposed axially and movably within said central hole in said key seat so as to permit synchronous swinging movement of said key seat and said push key, said push key being movable within said central hole in said key seat to press said resilient plate portion of said central plate against
15 said central contact leg and being capable of being actuated to press a selected one of said pressing portions of said key seat against a corresponding one of said resilient plate portions of said peripheral plate so as to move the corresponding one of said
20 resilient plate portions of said peripheral plate to said pressed position.

2. The multi-directional switch as claimed in Claim 1, wherein said peripheral plate unit includes two superposed ones of said peripheral plates, each of said
25 conductive portions of one of said peripheral plates overlapping a respective one of said conductive portions of the other one of said peripheral plates.

3. The multi-directional switch as claimed in Claim 1,
wherein said central plate unit includes a plurality
of superposed ones of said central plates, said
resilient plate portion of each of said central plates
5 being aligned with said resilient plate portions of
the remainder of said central plates.
4. The multi-directional switch as claimed in Claim 1,
wherein said base has six leg holes, each of said common
contact leg, said central contact leg, and said side
10 contact legs extending through a respective one of said
leg holes in said base and having a plate-shaped outer
end that extends in a direction that is generally
parallel to an axial direction of said central hole
in said key seat.
- 15 5. The multi-directional switch as claimed in Claim 1,
wherein said central plate is shaped as a dome that
has a central portion which constitutes said resilient
plate portion of said central plate.
- 20 6. The multi-directional switch as claimed in Claim 1,
wherein each of said conductive portions of said
peripheral plate is shaped as a dome that has a central
portion which constitutes said resilient plate portion
of said conductive portion of said peripheral plate.
- 25 7. The multi-directional switch as claimed in Claim 1,
wherein said base is formed with a plurality of curved
ribs that are arranged along a circle and that cooperate
to define a circular confining space, said central plate

being shaped as a dome and being confined within said confining space.

- 5 8. The multi-directional switch as claimed in Claim 7, wherein said central contact portion of said conductive member is C-shaped, said conductive member further having four angularly equidistant radial arms that extend integrally, radially, and outwardly from said central contact portion, each of said radial arms extending between an adjacent pair of said curved ribs and having an outer end that is formed with a respective
- 10 one of said side contact portions.